

What is claimed is:

1. A welding robot for spot welding, comprising:

a servo gun provided at a front end of a multi-joint arm, wherein a pair of electrode tips for the spot welding are installed;

a control unit for controlling a servo motor of the servo gun in a welding process or a grinding process of the electrode tips; and

a dresser for grinding the pair of the electrode tips, the dresser including a servo motor for rotating a grinding cutter,

wherein the control unit controls the servo motor of the dresser and controls the servo motor of the servo gun in order to adjust a pressure of the pair of the electrode tips installed in the servo gun with respect to the cutter, and

the control unit controls the servo motors of the servo gun and the dresser in a finishing grinding process to the pair of the electrode tips to increase the revolution of the cutter and reduce a pressure to the cutter relative to the revolution and pressure of the cutter during a rough finishing process.